

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference P239561PC00 | FOR FURTHER ACTION | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416). |
| International Application No. PCT/AU2003/001316 | International Filing Date (day/month/year) 7 October 2003 | Priority Date (day/month/year) 7 October 2002 |
| International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ B42D 15/10, B41M 3/14, G07D 7/12, B44F 1/12 | | |
| Applicant NOTE PRINTING AUSTRALIA LIMITED et al | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheet(s).

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☒ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

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| Date of submission of the demand 4 May 2004 | Date of completion of the report 21 December 2004 |
| Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929 | Authorized Officer PETER T. WEST Telephone No. (02) 6283 2108 |

I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

The International Preliminary Report on Patentability (Chapter II) has been drawn up in respect of the entire international application but the International Preliminary Examining Authority is of the opinion that the application does not appear to comply with the requirements of unity of invention as set forth in the PCT regulations (Article 34(3), Rule 68(1) PCT).

The separate groups of invention are:

1. Claims 1 and 20 are directed to a security device comprising a sheet having a substantially transparent or translucent layer and a reflective layer and a blind embossed transitory image formed through the transparent layer onto the reflective layer, at least part which is visible through the transparent layer at least at some viewing angles.

It is considered that the transitory image being formed through the transparent layer onto the reflective layer by blind embossing comprises a first special technical feature.

2. Claims 45, 60 and 71 are directed to a security device having a sheet including a reflective layer a blind embossed transitory image formed in the sheet in the region of the reflective layer wherein the transitory embossed image comprising a first embossing having a predetermined feature and a second embossing of smaller dimension formed on the predetermined feature of the first embossing, the first embossing being formed to hide and reveal the second embossing at predetermined viewing angles.

It is considered that a reflective layer with this type of double embossing comprises a second special technical feature.

(Continued in Supplemental Part)

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

| | | |
|-------------------------------|----------------|-----|
| Novelty (N) | Claims 1 to 98 | YES |
| | Claims | NO |
| Inventive step (IS) | Claims 1 to 98 | YES |
| | Claims | NO |
| Industrial applicability (IA) | Claims 1 to 98 | YES |
| | Claims | NO |

2. Citations and explanations (Rule 70.7)

The following documents identified in the International Search Report have been considered for the purposes of this report:

D1 US 6294241 B1 (KAULE et al.) 25 September 2001
D2 US 6283509 B1 (BRAUN et al.) 4 September 2001
D3 US 6183018 B1 (BRAUN et al.) 6 February 2001
D4 US 5915731 A (JACKSON) 29 June 1999
D5 US 5437897 A (TANAKA et al.) 1 August 1995
D6 US 5199744 A (SHENTON) 6 April 1993
D7 US 4715623 A (ROULE et al.) 29 December 1987
D8 US 4420515 A (AMON et al.) 13 December 1983
D9 US 4250217 A (GREENAWAY) 10 February 1981
D10 US 1996539 A (DUFAY) 2 April 1935
D11 WO 2002/004234 A1 (DE LA RUE INT LTD) 17 January 2002

Novelty

None of the cited documents disclose the specific combination of features defined in each of the independent claims. Therefore the subject matter of claims 1 to 98 is new and meets the requirements of Article 33(2) PCT with regard to novelty.

Inventive Step

Several of the cited documents disclose blind embossing a sheet having a reflective layer from the side of the reflective layer. It is considered that it is not obvious in the light of these documents to blind emboss a reflective layer on a transparent sheet through the sheet from the side opposite the reflective layer.

Documents D2, D6, D7 and D10 disclose embossed transitory image includes a first set of lines in one direction and a second set of lines extending in a different direction as defined in claims 78 and 85 however none of these documents disclose this arrangement of embossed lines being combined with a layer of optically variable pigment. Although optically variable pigments are well known in the security printing art there is no obvious reason to apply them to the disclosed embossments.

Claim 91 defines a security document or device comprising a substrate, a layer of optically variable or reflective coating applied to the area of the substrate, an embossed transitory image formed by embossing in the area of the coating, wherein the security document is formed with a transparent window and the image is at least partly disposed in the window. The most relevant prior art is document D5 which discloses the embossing of a transparent window in a security document, but does not disclose or suggest embossing a coating of optically

[Continued in Supplemental Box]

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box IV (Lack of unity of invention)

3. Claims 78 and 85 are directed to security device having a layer of optically variable pigment applied to an area of a substrate wherein the optically variable pigment provides a colour shift between two distinct colours with the colour shift being dependent on the viewing angle, and an embossed transitory image formed by embossing in the area of the optically variable pigment wherein the embossed transitory image includes a first set of lines or dots in one direction and a second set of lines or dots extending in a different direction.

It is considered that a optically variable pigment layer with this type of two direction embossing comprises a third special technical feature.

4. Claim 91 is directed to a security device comprising a substrate, a layer of optically variable or reflective coating applied to an area of the substrate, and a transitory image formed by embossing in the area of the coating, wherein the device is formed with a transparent window and the transitory image is at least partly disposed in the window.

It is considered that forming the device with a transparent window in which the transitory image is at least partly disposed comprises a fourth special technical feature.

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

Independent claims 3 and 4 combine features of first and fourth special technical features.

It is considered that the method defined in independent claim 5 is equivalent to the first special technical feature.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V

variable or reflective coating as defined in claim 91.

Therefore the subject matter of these claim 1 to 98 is not obvious and meets the requirements of Article 33(3) PCT with regard to inventive step.